

187. In its application, Ameritech submits evidence that shows that the percentage of FOCs not returned to competing carriers within 96 hours increased from approximately 14 percent in January 1997 to 45 percent in April 1997.⁴⁷⁶ In its reply comments, Ameritech submits evidence that shows that, from the week of March 31, 1997 through the week of May 26, 1997, the percentage of FOCs returned to AT&T in over 96 hours ranged from 10 percent to 60 percent.⁴⁷⁷ We agree with the Department of Justice that this is an indication that Ameritech is requiring more time to process orders as the volume of orders has increased.⁴⁷⁸ We are troubled by Ameritech's failure to submit comparative data indicating how long it takes Ameritech to receive the equivalent of a FOC for its own orders.⁴⁷⁹ We would expect Ameritech to submit such data in a future application in support of its claim that it is providing nondiscriminatory access to OSS functions. In addition, whether or not FOCs received within 96 hours is an appropriate benchmark,⁴⁸⁰ we are concerned about how often that standard is not met. This is significant because, as long as a competing carrier has not received a FOC, the competing carrier, as well as the customer, is unaware of the status of its order. Moreover, we are also concerned that the data regarding the percentage of FOCs returned outside of 96 hours do not indicate that Ameritech's performance has improved over time or, even, that its performance has stabilized.

188. Similarly, the evidence indicates that order rejection notices have been significantly delayed during the months prior to the filing of Ameritech's application. As the Department of Justice notes, average order rejection notices were taking over six days in

⁴⁷⁶ Ameritech Application, Vol. 2.10, Mickens Aff. at 48. See also AT&T Comments, Vol. III.E, Bryant Aff. at 59 (citing Mickens Affidavit at 48-49) ("Ameritech's heavy reliance on manual processing has meant that Ameritech has been unable to provide AT&T with 855 notices within four days of order submission approximately 15% of the time in February, 25% of the time in March, and 45% of the time in April.").

⁴⁷⁷ Ameritech Reply Comments, Vol. 5R.7, Gates and Thomas Reply Aff. at Exhibit 8 ("855 Performance") (3/31 - 26%; 4/7 - 10%; 4/14 - 23%; 4/21 - 29%; 4/28 - 37%; 5/5 - 17%; 5/12 - 40%; 5/19 - 60%; 5/26 - 17%).

⁴⁷⁸ Department of Justice Evaluation, Appendix A at 17. See AT&T Comments, Vol. III.E, Bryant Aff. at 58.

⁴⁷⁹ Evidence in the record suggests that the appropriate retail analogue for a FOC would be the time that elapses between when an Ameritech order is placed into the legacy systems and when the order is recognized as a valid order by the legacy systems. We believe that the BOC performs the functional equivalent of a "FOC" for itself even if it does not do so in an identical manner. See discussion on equivalent access *supra* para. 139.

⁴⁸⁰ We make no finding in this Order regarding whether FOCs returned within 96 hours is an appropriate benchmark. As discussed *supra* note 346, a petition is pending before the Commission requesting that the Commission adopt performance standards and reporting requirements for OSS functions provided by incumbent LECs to competing carriers. See *Performance Standards Public Notice*.

April.⁴⁸¹ Ameritech claims in its reply comments that the return time for order rejection notices has since decreased and that the increased processing time in April was caused by a sudden increase in demand at the end of the month.⁴⁸² We find Ameritech's explanation to be only partially adequate, however, because order rejection notices generated electronically by the interface should be relatively instantaneous.⁴⁸³ Only those orders that are received by the interface, but manually processed, receive delayed rejection notices. Therefore, to the extent an increase in demand strains Ameritech's resources so that manually generated order rejection notices are backlogged, we believe that this is another example of the negative impact that manual processing has on Ameritech's ability to provide to competing carriers equivalent access to OSS functions.⁴⁸⁴

(d) OSS Capacity Constraints in Response to Increased Demand

189. Although evidence in the record indicates that Ameritech's reliance on manual processing has required it, on an ongoing basis, to modify due dates and send late FOCs and rejection notices in response to a significant number of orders, the evidence further demonstrates that these problems have been exacerbated as the volume of orders has increased. Ameritech represents that it is currently able to process electronically approximately 368,000 orders for resale service per month over the EDI interface.⁴⁸⁵ Ameritech also asserts that Andersen Consulting has independently reviewed its capacity requirements and determined that Ameritech's plan for adding electronic capacity for receiving orders is reasonable.⁴⁸⁶ In addition, Ameritech represents that Andersen Consulting has reviewed its plan for adding manual capacity and concluded that Ameritech would need to add between 330 and 410 service representatives before the end of the year in order to meet

⁴⁸¹ Department of Justice Evaluation, Appendix A at 18; *see also* AT&T Comments, Vol. III.E, Bryant Aff. at Attachment 21, 22.

⁴⁸² Ameritech Reply Comments, Vol. 5R.7, Gates and Thomas Reply Aff. at 20. Ameritech represents that the return time for order rejection notices decreased to under 4 days in May and to 1.87 days in June. *Id.* at 20-21. As discussed above, we give no weight to new evidence that has been generated since the date of filing the application. Therefore, we discount the June data. The issue regarding increased order demand in April is discussed more fully below in section VI.C.5.c.(2).(d).

⁴⁸³ *See* AT&T Comments, Vol. III.E, Bryant Aff. at 55 (citing Rogers Testimony in Illinois Commerce Commission Hearings, Docket No. 96-0404 (May 7, 1997)).

⁴⁸⁴ *See* Department of Justice Evaluation, Appendix A at 18.

⁴⁸⁵ Ameritech Application, Vol. 2.9, Meixner Aff. at 18.

⁴⁸⁶ *See id.*, Vol. 2.9, Meixner Aff. at 16-18.

its projected requirements for manual processing.⁴⁸⁷ On behalf of Ameritech, Andersen Consulting avers that "it appears reasonable that Ameritech could hire (or transfer internally) an appropriate number of service representatives to meet demand."⁴⁸⁸

190. AT&T represents that, shortly before Ameritech filed its section 271 application for Michigan, over a period of two weeks, AT&T submitted 4,541 resale orders over Ameritech's EDI interface for Michigan and a total of 13,325 resale orders region-wide.⁴⁸⁹ Ameritech's own data show that Ameritech was unable to process all of these orders electronically, and therefore, a substantial number of orders required manual processing. A significant number of these orders remained pending or were backlogged for days.⁴⁹⁰ For example, Ameritech's data indicate that 22 percent of the due dates requested by AT&T during the week of April 28th were modified by Ameritech.⁴⁹¹ The same data indicate that, during the next week, 37 percent of the due dates requested by AT&T were modified by Ameritech, even though the total number of orders placed by AT&T during this week was significantly less than the previous week.⁴⁹² Moreover, Ameritech's data indicate that during the weeks of April 21st, April 28th, and May 5th, 57.5 percent, 68.9 percent, and 60.3 percent, respectively, of the total modified due dates were changed because of Ameritech

⁴⁸⁷ *Id.*, Vol. 2.13, Rogers Aff. at 51, and Vol. 2.9, Meixner Aff. at 24-25.

⁴⁸⁸ *Id.*, Vol. 2.9, Meixner Aff. at 25. In its reply comments, Ameritech represents that it added 37 service representatives in May and has additional plans to increase the total number of service representatives to 391 by the end of the year in order to meet its capacity needs for manual processing. Ameritech Reply Comments, Vol. 5R.7, Gates and Thomas Reply Aff. at 32. As discussed above, we give no weight to information that Ameritech has updated after the submission of its application.

⁴⁸⁹ AT&T represents that, during the month of April, it increased order volumes in Michigan from 1,124 orders the week of April 13th, to 1,763 orders the week of April 20th, and to 2,778 orders the week of April 27th. AT&T Comments, Vol. III.E, Bryant Aff. at 44. The total number of resale orders placed by AT&T over the EDI interface was actually 13,325 for the entire Ameritech region. During this same time period, AT&T increased order volumes in Illinois from 602 orders the week of April 13th, to 3,066 orders the week of April 20th, and to 5,718 orders the week of April 27th. *Id.*

⁴⁹⁰ Ameritech's data indicate that during the week of April 28th, 37 percent of all AT&T orders did not receive a FOC within 96 hours. Ameritech Reply Comments, Vol. 5R.7, Gates and Thomas Reply Aff. at Exhibit 8 ("855 Performance").

⁴⁹¹ *Id.*, Vol. 5R.7, Gates and Thomas Reply Aff. at Exhibit 8 ("Changed Due Dates").

⁴⁹² *Id.*, Vol. 5R.7, Gates and Thomas Reply Aff. at Exhibit 8 ("Changed Due Dates"). The total number of AT&T orders during the week of April 28th was just under 8,000, while the total number of AT&T orders the following week was just over 5,000.

resource problems.⁴⁹³ Such evidence suggests that Ameritech's resources were still committed to clearing the backlog of orders that remained from the previous week.

191. We find that Ameritech's inability to process adequately the increased volume of orders from AT&T at the end of April is further indication that Ameritech is unable to demonstrate that it is providing nondiscriminatory access to OSS functions for the ordering and provisioning of resale services. Moreover, we find that this incident calls into question Ameritech's ability to process on a timely basis the number of orders reflected by its stated monthly electronic capacity. As a result, the record causes us to have significant doubts about Ameritech's ability to handle an increasing volume of orders, which will be a critical component in order for competition to develop in the Michigan local exchange market.⁴⁹⁴

192. Although the number of orders placed by AT&T over the EDI interface at the end of April was substantially more than the number of orders it had placed during the previous weeks, we find it significant that the total number of orders was still well within the range of Ameritech's stated capacity.⁴⁹⁵ In addition, the vast majority of the orders placed by AT&T were, and apparently continue to be, almost exclusively residential POTS resale migration orders.⁴⁹⁶ Ameritech attempts to place significance on the fact that most of the AT&T orders are not the most simple migration orders because, in addition to requiring billing changes, many include changes in features.⁴⁹⁷ We find it more significant, however, that Ameritech does not contend that the AT&T orders generally involved more complex services or required field visits, given that Ameritech points to these factors as the major

⁴⁹³ *Id.*, Vol. 5R.7, Gates and Thomas Reply Aff. at Exhibit 8 ("Reasons for Changed Due Dates"). We also note that, between the week of May 12th through the week of May 26th, the percentage of orders with modified due dates caused by Ameritech resource problems continued to range between approximately 50 and 70 percent of the total orders requiring modified due dates. The actual numbers ranged from approximately 1,000 to almost 4,000 orders. *Id.*

⁴⁹⁴ By way of comparison, based on 1995 data, it is reasonable to assume that, approximately, more than 20,000 Michigan consumers per week currently change their interexchange carrier. In deriving this figure, we assume that Michigan has approximately 3.75 percent of the total access lines in the United States (6,195,898/164,861,912), and that consumers change interexchange carriers at least 30,000,000 times in a year. See Report, *Statistics of Communications Common Carriers*, Federal Communications Commission, 1995/1996 Edition, at table 2.5 (rel. Dec. 1, 1996) (*Common Carrier Statistics*) (total number of access lines in Michigan and in the United States) and *Motion of AT&T Corp. to be Reclassified as a Non-Dominant Carrier*, Order, 11 FCC Rcd 3271, 3305 (1996) (total number of consumer changes of interexchange carriers).

⁴⁹⁵ In addition, AT&T argues that the increase was within the overall trend of increasing orders for the year as a whole. See AT&T Comments, Vol. III.E, Bryant Aff. at 48-51.

⁴⁹⁶ *Id.*, Vol. III.E, Bryant Aff. at 33-34.

⁴⁹⁷ Ameritech Reply Comments, Vol. 5R.24, Rogers Reply Aff. at 27.

reasons, other than a lack of Ameritech resources, for the need for manual processing and the modification of due dates.⁴⁹⁸

193. The evidence in the record indicates that Ameritech was unable to process in a timely fashion all of the AT&T orders because the increased order volume triggered a simultaneous increase in the number of orders requiring manual processing, which severely strained Ameritech's available resources. Because Ameritech lacked the resources to handle this increase, orders were backlogged, delaying Ameritech's ability to deliver FOCs and order rejection notices, and requiring Ameritech to modify the due dates for those orders it was unable to process within the time-frame defined by the requested due date. As noted above, competing carriers have little control over which orders require manual processing.⁴⁹⁹ As a result, because competing carriers can do little to reduce the number of orders that are manually processed, Ameritech's decision whether to mechanize the processing of orders directly impacts its ability to provide nondiscriminatory access to OSS functions.

194. If, as discussed above, 30 to 40 percent of the resale orders placed by competing carriers over the EDI interface continue to require manual review, Ameritech's capacity to receive electronic orders over the interface may be unaffected, but its capacity to process those orders electronically will be reduced. We agree with the Department of Justice that, "[i]f Ameritech relies on manual procedures to process a significant portion of orders received via its EDI interface, the capacity of the electronic processes becomes less important than that of its manual procedures, as the events in April indicate."⁵⁰⁰

195. Ameritech contends that, because its capacity planning is based on relatively stable increases in order volume, the "spike" caused by AT&T's unannounced increase in order volumes must be discounted as reliable evidence of Ameritech's ability to process large volumes of orders.⁵⁰¹ As the Department of Justice aptly notes, however, "... the competitive marketplace, especially during the early stages of entry, may not accommodate Ameritech's expectations."⁵⁰² Using Ameritech's capacity assumptions, Ameritech's daily capacity for

⁴⁹⁸ Ameritech Application, Vol. 2.13, Rogers Aff. at 29; *see also* AT&T Comments, Vol. III.E, Bryant Aff. at 67-68.

⁴⁹⁹ *See supra* notes 325, 440.

⁵⁰⁰ Department of Justice Evaluation, Appendix A at 15.

⁵⁰¹ Ameritech Application, Vol. 2.10, Mickens Aff. at 43-44; Ameritech Reply Comments, Vol. 5R.24, Rogers Reply Aff. at 39, Vol. 5R.16, Mayer, Mickens, and Rogers Reply Aff. at 10, 30-31, and Vol. 5R.7, Gates and Thomas Reply Aff. at 33.

⁵⁰² Department of Justice Evaluation, Appendix A at 15; *see also* AT&T Comments, Vol. III.E, Bryant Aff. at 51 ("In a multi-CLEC environment, where general advertising will be a primary means of winning new customers, unpredictable and fluctuating ordering volumes will be the rule, not the exception.").

handling electronic orders placed over the EDI interface is approximately 15,000 orders per day.⁵⁰³ In this instance, the total number of orders placed by AT&T was well within Ameritech's stated electronic capacity. Specifically, AT&T placed 4,541 orders for Michigan and 13,325 region-wide over the two-week period.⁵⁰⁴ The number of Michigan orders placed by AT&T over the EDI interface during the two-week period was approximately 15 percent of Ameritech's stated electronic capacity. The number of region-wide orders placed by AT&T over the EDI interface was only a little more than half of Ameritech's stated capacity. As a result, we find Ameritech's assertion that it has the electronic capacity to process 368,000 orders per month to be unsupported by the existing evidence.

196. As demonstrated by this incident, Ameritech's significant reliance on manual processing directly impacts its actual ability to provision orders on a timely basis. We conclude that the reliance on a substantial amount of manual processing may violate Ameritech's duty to provide equivalent access when Ameritech's retail operation processes essentially all of its orders electronically. Because it is virtually impossible for orders that are processed manually to be completed in the same time as orders that flow through electronically, it is difficult to see how equivalent access could exist when Ameritech processes a significant number of orders from competing carriers manually. Although additional manual processing may constitute a reasonable and necessary short-term solution to address capacity concerns, we do not believe that substantial and continued reliance on manual capacity as a long-term solution to the ordering and provisioning of resale services is consistent with the requirement that there be equivalent access.

197. Moreover, although Ameritech argues that its plan for adding manual capacity has been reviewed and deemed reasonable by Andersen Consulting,⁵⁰⁵ this does not provide us with a basis for concluding that Ameritech's problems with manual processing would not have

⁵⁰³ Because orders are not processed on weekends or holidays, we presume that Ameritech excludes those days from the volume of orders that Ameritech can process each day. See Ameritech Reply Comments, Vol. 5R.7, Gates and Thomas Reply Aff. at 23; see also AT&T Comments, Vol. V, Connolly Aff. at 112 ("Assuming that Ameritech's systems operate six days a week, that computes to more than 15,000 orders per day.")

⁵⁰⁴ Because AT&T currently is by far the most active reseller using the EDI interface in the Ameritech region, the total number of resale orders received over the interface was not significantly higher than the total number of resale orders sent by AT&T during this period of time. Ameritech has not indicated that orders from other competing carriers in combination with the orders received from AT&T exceeded its stated capacity levels.

⁵⁰⁵ We note that Andersen Consulting conducted a review of Ameritech's OSS interfaces, including analyses of both manual and electronic capacity, both before the filing of Ameritech's application and during the pendency of Ameritech's application. As discussed *supra* Section IV.B.1, we do not give no weight to new evidence filed after the filing date of the application and that goes beyond the time-frame covered by information filed by commenting parties. Therefore, we give no weight to the review conducted by Andersen Consulting during the pendency of this application because it is not directly responsive to issues raised by commenting parties. See also discussion of third-party review of OSS functions *infra* para. 216.

occurred if only Ameritech had added more personnel. Although an independent review of capacity is helpful in assessing operational readiness, we cannot simply rely on a hypothetical analysis of Ameritech's future abilities in the face of actual evidence that calls into question its current capabilities.

198. Ameritech contends that, when AT&T and other competing carriers plan to add a significant number of customers in a short period, these carriers should forewarn Ameritech, so that it is adequately able to allocate resources to meet the expected demand.⁵⁰⁶ We recognize that it may be reasonable for Ameritech to request advance notice if a competing carrier seeks to increase its order volumes to such an extent that the total volume of orders received over Ameritech's EDI interface would exceed Ameritech's stated capacity, so long as the stated capacity is reasonable in light of expected demand. We find, however, that Ameritech's proposed solution of requiring competing carriers to provide advance notice, even when the total volume of orders remains well within the range of Ameritech's stated capacity, to be unreasonable. Ameritech should be able to handle, without receiving advance notice from competing carriers, volumes of orders that fall within its stated capacity. If Ameritech's reliance on manual processing continues to reduce its ability to process orders from competing carriers in a timely fashion, then Ameritech should adjust its capacity claims accordingly.⁵⁰⁷

199. We conclude that Ameritech's OSS functions for ordering and provisioning must be able to handle reasonable fluctuations in service orders by competing carriers as well as reasonably foreseeable general increases in ordering volumes. This is especially true when a short-term surge in orders does not result in the total number of orders exceeding or even approaching Ameritech's stated capacity. We find that Ameritech's inability to handle adequately AT&T's increase in order volume indicates that Ameritech has not demonstrated that its systems are capable of handling the order volumes and fluctuations reasonably

⁵⁰⁶ Ameritech Reply Comments, Vol. 5R.24, Rogers Reply Aff. at 39, and Vol. 5R.16, Mayer, Mickens, and Rogers Reply Aff. at 30-31.

⁵⁰⁷ We also question Ameritech's contention that advance notice from AT&T would have changed significantly Ameritech's ability to process the orders in April 1997. Given Ameritech's standard training requirements for adding new personnel, we assume that Ameritech would need warning well in advance of a competing carrier's plan to increase substantially its volume of orders. Ameritech represents that "[b]asic training on these order entry systems can be accomplished in about two days if the employee is familiar with Ameritech's business operations. It takes about 30 days before an employee is assumed to function at a fully efficient level, but orders would be processed during that entire period." Ameritech Application, Vol. 2.13, Rogers Aff. at 52. Even if Ameritech were staffing its positions from within the company, we assume that Ameritech would need adequate lead time to recruit employees and transfer them to their new position before beginning any type of training. See also CWA Reply Comments at 9, 15-18.

expected in a competitive marketplace.⁵⁰⁸ Our concern is heightened by the fact that Ameritech handles OSS functions on a region-wide basis from a single location. As more competing carriers enter the local markets in each state in Ameritech's region, we expect order volumes to continue to be relatively volatile. In any future application, we would expect to see data indicating that Ameritech has processed in a timely fashion orders falling within the range of its stated capacity.

(3) Double-Billing Problems

200. Ameritech acknowledges that there have been a number of instances in which new customers of competing carriers have been double-billed by both Ameritech and the competing carrier.⁵⁰⁹ Ameritech concedes that not all customers potentially affected by this problem have yet been identified.⁵¹⁰ In assessing the cause of double-billing, Ameritech explains that in some cases, its billing systems rejected orders⁵¹¹ for which order completion notices had already been transmitted to the competing carrier.⁵¹² Because the billing system has rejected the order, Ameritech continues to bill the customer, while, at the same time, the competing carrier also has begun to bill the customer.

201.. Nonetheless, Ameritech argues that other parties have overstated the double-billing problem, while, at the same time, understating the measures Ameritech has taken to

⁵⁰⁸ We note that Ameritech represents in its reply that, as order volumes increased in June, it received 9,100 orders during the week of June 2nd, nearly 10,500 orders during the week of June 9th, and almost 23,500 orders during the week of June 23rd. In addition, Ameritech asserts that, on June 26th, it processed over 7,300 orders in a single day. See Ameritech Reply Comments at 6, and Vol. 5R.7, Gates and Thomas Reply Aff. at 12-13. As discussed above, we give no weight to new evidence that pertains to events occurring after comments were filed, and we only consider evidence that pertains to events occurring between the date an application is filed and the date comments are filed when such evidence is directly responsive to arguments or evidence presented in comments. See *supra* Section IV.B.1.

⁵⁰⁹ In its reply, Ameritech indicates that, to date, it has analyzed 3,011 AT&T orders submitted between January 8, 1997 and April 16, 1997, involving 1,402 customers who were candidates for double billing. Ameritech states it has identified 435 who were billed in error by Ameritech. Ameritech also represents that it currently is analyzing orders for an additional 24,111 AT&T customers. Ameritech Reply Comments, Vol. 5R.24, Rogers Reply Aff. at 36-37.

⁵¹⁰ Ameritech Reply Comments, Vol. 5R.24, Rogers Reply Aff. at 37.

⁵¹¹ When orders are rejected by the billing system, Ameritech assigns such orders "3E" status. Ameritech Application, Vol. 2.13, Rogers Aff. at 46.

⁵¹² Order completion notices are notices that Ameritech sends to competing carriers over the EDI interface after an order has been processed and completed by Ameritech. Ameritech Application, Vol. 2.13, Rogers Aff. at 36. An order completion notice, *inter alia*, triggers the competing carrier to begin billing the customer.

resolve the problem.⁵¹³ Although Ameritech recognizes that double-billing directly affects end user customers, it claims, without further elaboration, that "most of the customers [double-billed] will prove to have been AT&T or MCI employees, not commercial accounts."⁵¹⁴ In addition, Ameritech claims that, when it realized that there was a potential double-billing problem, it attached the highest priority to resolving the problem.⁵¹⁵ In its application, Ameritech asserts that, beginning on May 12th, it implemented solutions to resolve the problem.⁵¹⁶ Ameritech represents that it assigned specialists to clear any existing orders in potential double-billing status and to verify any erroneous billing, added edits to the interface to catch format errors before the order reaches the billing system, and dedicated a group of service representatives to review any future orders in this status.⁵¹⁷ In its reply, Ameritech further explains that it has identified the type of order that is the largest contributor to the double-billing problem, and that it has implemented an electronic fix to prevent these orders from being backlogged in "3E" status⁵¹⁸ for more than one day, thereby reducing the potential for double-billing.⁵¹⁹

202. Commenters, including the Department of Justice, contend that double-billing is a serious problem that directly impacts the competing carriers' relationships with end-user customers.⁵²⁰ Commenters argue that the double-billing problem is likely to be a symptom of a broader systemic problem, which involves the legacy systems' ability to process smoothly orders from competing carriers delivered over the interface, and that Ameritech's solution to "fix" the double-billing problem does not address the root causes of the underlying systemic

⁵¹³ Ameritech Reply Comments, Vol. 5R.24, Rogers Reply Aff. at 37. Ameritech states that "there are always going to be some problems and 'bugs' in any major information systems, whether new or existing." *Id.*, Vol. 5R.16, Mayer, Mickens and Rogers Reply Aff. at 9.

⁵¹⁴ *Id.*, Vol. 5R.24, Rogers Reply Aff. at 35.

⁵¹⁵ Ameritech Application, Vol. 2.13, Rogers Aff. at 46.

⁵¹⁶ *Id.*, Vol. 2.13, Rogers Aff. at 46 and Exhibit 14.

⁵¹⁷ *Id.*, Vol. 2.13, Rogers Aff. at 46.

⁵¹⁸ See *supra* note 511.

⁵¹⁹ Ameritech Reply Comments, Vol. 5R.24, Rogers Reply Aff. at 36.

⁵²⁰ Department of Justice Evaluation, Appendix A at 23; AT&T Comments, Vol. III.E, Bryant Aff. at 7.

problem.⁵²¹ Commenters also note that the double-billing problem has been identified as significant by other state commissions in the Ameritech region.⁵²²

203. We find that the double-billing problem is compelling evidence that Ameritech's OSS for ordering and provisioning for resale services is not operationally ready, and therefore, Ameritech is not providing nondiscriminatory access to OSS functions. While we agree that Ameritech should not be held to a standard of perfection in demonstrating that its OSS functions are operationally ready, we find that double-billing, as well as the problems associated with manual processing discussed above, constitute problems fundamental to Ameritech's ability to provide nondiscriminatory access to OSS functions. Although, based on the record before us, it is unclear whether the double-billing problem is a symptom of a larger systemic problem, we do find that, in and of itself, double-billing is a serious problem that has a direct impact on customers and, therefore, must be eliminated. Because Ameritech took action to solve the problem only nine days before it filed its application, it was unable to demonstrate by the date of its filing that it had successfully fixed the problem. Although we give no weight to new evidence filed after the submission of Ameritech's application, we note that, during the pendency of its application, Ameritech has only been able to collect preliminary data regarding the extent of the problem and the impact of the changes it has made to correct the problem. Ameritech cannot rehabilitate its deficient showing on this issue merely by elaborating further in its reply on the solutions it has implemented. Rather, we would expect Ameritech to submit evidence in any future application demonstrating that the corrective actions it so recently implemented have in fact significantly reduced the number of double-billing incidents.

6. Absence of Substantial Evidence to Support Statutory Finding

204. In addition to our conclusion that Ameritech has failed to demonstrate that it is providing nondiscriminatory access to particular OSS functions, we also find that Ameritech has failed to meet a broader and even more fundamental duty with regard to the evidentiary burden required to demonstrate that it is providing nondiscriminatory access to all OSS functions. Consistent with the findings of the Department of Justice and the Michigan Commission, we conclude that Ameritech has not provided the Commission with all of the empirical data necessary to substantiate Ameritech's asserted provision of nondiscriminatory access to the OSS functions required by section 271 and section 251 of the Act. For the Commission to conclude that Ameritech is providing nondiscriminatory access to OSS functions, we must have a proper factual basis upon which to make such a finding. In this case, Ameritech has failed to provide all of the data that we believe are necessary in order to

⁵²¹ AT&T Comments, Vol. V, Connolly Aff. at 8-9, 35-36, and Vol. III.E, Bryant Aff. at 93-98.

⁵²² See, e.g., Public Service Commission of Wisconsin, Second Order in Docket 6720-TI-120 at 17 (May 29, 1997).

evaluate its compliance with the statutory nondiscrimination standard. As the Department of Justice stated, "proper performance measures with which to compare BOC retail and wholesale performance, and to measure exclusively wholesale performance, are a necessary prerequisite to demonstrating compliance with the Commission's 'nondiscrimination' and 'meaningful opportunity to compete standards.'"⁵²³

205. In its evaluation, the Department of Justice states that it is unable to make an affirmative determination regarding the operational readiness of Ameritech's operations support systems without further data. The Department of Justice concludes, *inter alia*, that Ameritech must provide data for a number of performance measures (in addition to those already provided by Ameritech), as well as clearer and more specific definitions for the performance measures it already uses, before the Department of Justice could render a positive recommendation regarding Ameritech's OSS functions. Specifically, the Department of Justice finds that Ameritech currently fails to provide data on the following measures that the Department of Justice views as fundamental to making a demonstration of nondiscrimination: (1) average installation intervals for resale;⁵²⁴ (2) average installation intervals for loops; (3) comparative performance information for unbundled network elements; (4) service order accuracy and percent flow through; (5) held orders and provisioning accuracy; (6) bill quality and accuracy; and (7) repeat trouble reports for unbundled network elements.⁵²⁵ In addition, the Department of Justice finds that, "before Ameritech's proposed performance measures can be considered sufficient to judge non-discrimination and detect post-entry backsliding, they must be specifically and clearly defined."⁵²⁶

206. Similarly, the Michigan Commission concludes that "complete and appropriate performance standards" must be in place "before a positive determination can be made" regarding whether Ameritech's OSS functions comply with the nondiscrimination requirements of the Commission's rules.⁵²⁷ The Michigan Commission recommends that the development of such performance standards take account of the following: (1) performance assessments of both the interface and the internal operations support systems; (2) performance measures that track those factors within Ameritech's control; (3) performance measures that permit comparisons with Ameritech's retail operations, such as data measuring the average time to complete a task; (4) the use of substantially analogous functions for parity measurements; (5) the availability of alternative interfaces for smaller competing carriers; (6)

⁵²³ Department of Justice Evaluation, Appendix A at 3.

⁵²⁴ See *supra* Section VI.C.5.c.(1).

⁵²⁵ Department of Justice Evaluation, Appendix A at 24-28.

⁵²⁶ *Id.*, Appendix A at 29.

⁵²⁷ Michigan Commission Consultation at 33-34.

identification of the functions that Ameritech performs manually and electronically for its customers; (7) sufficient disaggregation of the data to permit meaningful parity comparisons; (8) precise clarity in defining the measurements; (9) OSS performance data for directory assistance, white pages listings, number portability, operator services and 911; (10) specified reporting schedules and formats; (11) an agreed-upon period of time in which to measure relevant performance; and (12) remedies and/or penalties for noncompliance.⁵²⁸

207. In response to the Department of Justice's concern that its performance measures are not sufficiently detailed and clear, Ameritech contends in its reply that it will begin to provide more detailed explanations of its performance measures to competing carriers, but that it has not previously included them in as part of its monthly performance reports.⁵²⁹ Ameritech also disputes the need for the additional data suggested by the Department of Justice and the Michigan Commission. For several measures, Ameritech asserts that there are too many variables involved that prevent those measures from providing meaningful comparisons. For example, as discussed above, Ameritech asserts that resale orders vary so greatly in complexity and in the processing required for their completion as to render average installation intervals meaningless.⁵³⁰

208. Ameritech also argues that certain measures proposed by the Department of Justice are not relevant measures of parity, or that in any case, Ameritech does not monitor performance under those measures for its own retail operations.⁵³¹ For instance, Ameritech disputes the need to measure the accuracy of its ordering performance, as suggested by the Department of Justice.⁵³² In addition, Ameritech asserts that it does not provide information

⁵²⁸ *Id.* at 31-32.

⁵²⁹ Ameritech Reply Comments, Vol. 5R.16, Mayer, Mickens and Rogers Reply Aff. at 15-16, and Vol. 5R.7, Gates and Thomas Reply Aff. at 22-23, Schedule 8. In its reply comments, Ameritech asserts that it will now include these explanations in its monthly reports. *Id.*

⁵³⁰ Ameritech Application, Vol. 2.10, Mickens Aff. at 20-21; Ameritech Reply Comments, Vol. 5R.16, Mayer, Mickens and Rogers Reply Aff. at 17-18 ("Some orders require a field dispatch; others do not. Some require construction of facilities; others do not. Some wire centers can support complex features; others cannot"); Ameritech Reply Comments, Vol. 5R.18, Mickens Reply Aff. at 12. Ameritech also argues that average intervals for unbundled loop installation are not a good measure because there are many variables to the provisioning of unbundled loops. *Id.*, Vol. 5R.16, Mayer, Mickens and Rogers Reply Aff. at 21. Ameritech argues that the provisioning time for POTS services, for example, typically range from six hours to six days. *Id.*

⁵³¹ For example, Ameritech argues that OSS performance is not an end in itself; rather, its interfaces and legacy systems are of secondary importance to whether competing carriers are receiving timely and accurately provisioned products and services. Ameritech Reply Comments, Vol. 5R.18, Mickens Reply Aff. at 10, 15-16.

⁵³² *Id.*, Vol. 5R.16, Mayer, Mickens, and Rogers Reply Aff. at 24 (competing carriers may verify order accuracy by using the CSR function of the pre-ordering interface to retrieve their customers' CSRs after the orders have been completed).

regarding competing carriers' pending orders because it does not provide such information for its own retail operations.⁵³³ With regard to a number of the performance measurements suggested by the Department of Justice and the Michigan Commission, Ameritech claims that it already is providing similar data through other measures,⁵³⁴ or that it will provide the data, either as a special analysis upon request,⁵³⁵ or on a recurring basis in the future.⁵³⁶ Additionally, in response to the Michigan Commission, Ameritech argues that there should be no disagreement among the parties on what standards should be used to judge the performance of OSS functions because such standards are specifically addressed in its interconnection agreements.⁵³⁷ Finally, Ameritech asserts that the performance measurements required by its interconnection agreements do not represent all of the performance information that Ameritech is currently providing to competing carriers. In this regard, Ameritech states that it has voluntarily and publicly committed to reporting several other measurements of performance to ensure that requesting carriers can fairly monitor Ameritech's performance.⁵³⁸

209. Like the Department of Justice and the Michigan Commission, we find that the evidence in the record regarding Ameritech's provision of access to OSS functions is plagued by unclear data and conflicting interpretations. As an initial matter, we agree with the Department of Justice and the Michigan Commission that many of the performance measurements that Ameritech has submitted in its application are not clearly explained in order to make them meaningful to us and commenting parties. We find that this is at least partially caused by the ambiguity in several of the explanations provided by Ameritech to

⁵³³ *Id.*, Vol. 5R.16, Mayer, Mickens, and Rogers Reply Aff. at 24 (Ameritech will provide this information upon request by a requesting carrier, the Michigan Commission, or this Commission).

⁵³⁴ In response to the Department of Justice, Ameritech argues that it does measure unbundled loop performance for "trouble report rate," "receipt to restore," and "out of service over 24 hours." Ameritech Reply Comments, Vol. 5R.16, Mayer, Mickens, and Rogers Reply Aff. at 22.

⁵³⁵ For example, Ameritech disputes the need to examine "order flow-through," arguing that flowthrough as a measure is not as important as Ameritech's actual performance in meeting its obligations; at the same time, it commits to providing this information upon special request. Ameritech Reply Comments, Vol. 5R.16, Mayer, Mickens, and Rogers Reply Aff. at 25. Ameritech asserts that, in response to the Department of Justice's Evaluation, Ameritech prepared such an analysis. *See id.*, Vol. 5R.7, Gates and Thomas Reply Aff. at Schedule 3-8. Ameritech also asserts that it will provide a special analysis comparing retail repair performance against unbundled loop repair performance. *Id.*, Vol. 5R.16, Mayer, Mickens, and Rogers Reply Aff. at 23.

⁵³⁶ For instance, Ameritech states that it is developing a means of reporting billing accuracy information which should be available in the third quarter of 1997. Ameritech Reply Comments, Vol. 5R.16, Mayer, Mickens, and Rogers Reply Aff. at 26.

⁵³⁷ *Id.*, Vol. 5R.18, Mickens Reply Aff. at 5-6.

⁵³⁸ *Id.*, Vol. 5R.18, Mickens Reply Aff. at Schedule 1. *See id.*, Vol. 5R.16, Mayer, Mickens, and Rogers Reply Aff. at Schedule 1.

describe the data included in its performance measures. For example, as noted by the Department of Justice, "Ameritech's definition of due dates not met, relating 'the number of missed appointments to the total number of appointments in the reporting period' does not reveal that the measure includes only installations completed past due and excludes orders which are pending past due."⁵³⁹ As a result, we are unable to conclude from the data whether Ameritech is providing nondiscriminatory access to OSS functions. Clear and precise performance measurements are critical to ensuring that competing carriers are receiving the quality of access to which they are entitled.⁵⁴⁰ Therefore, we agree with the Department of Justice and the Michigan Commission that the meaning and scope of the performance measurements submitted by Ameritech to demonstrate compliance with the statutory standard must be clearly explained before we can properly evaluate whether the empirical data substantiate Ameritech's claim.

210. We also conclude that Ameritech's refusal to provide particular data solely on the basis that it does not currently collect that information in connection with its retail operations is unpersuasive. The empirical evidence necessary to demonstrate that Ameritech is providing nondiscriminatory access to OSS functions may not necessarily be the same as those performance measurements that Ameritech currently provides to its retail operations. For example, as discussed above, we believe that data measuring average installation intervals are necessary to demonstrate parity for those OSS functions in which timeliness is critical, even though Ameritech represents that it does not currently measure such performance for its own retail operations.⁵⁴¹ While the performance measurements that Ameritech has historically tracked for its retail operations provide some support for its claim that it is providing nondiscriminatory access to OSS functions to competing carriers, such measurements alone will not provide us with sufficient information to decide whether the statutory standard has been met. To find otherwise, would permit Ameritech to limit the scope of our inquiry to an examination of the information that Ameritech believes is relevant, rather than what we deem is both relevant and necessary.

211. The Commission must be satisfied that the performance measures that Ameritech relies on in support of its section 271 application actually measure performance in a manner that shows whether the access provided to OSS functions is nondiscriminatory.

⁵³⁹ Department of Justice Evaluation, Appendix A at 30.

⁵⁴⁰ We also note that Ameritech includes in its reply comments a document it had jointly prepared with AT&T, for submission to the Department of Justice, that provided a more detailed explanation of Ameritech's performance measures and agreement on the data contained within. See Ameritech Reply Comments, Vol. 5R.7, Gates and Thomas Reply Aff. at Exhibit 8.

⁵⁴¹ The necessity for average installation intervals in the context of the OSS functions for the ordering and provisioning of resale services is discussed more fully above in Section VI.C.5.c.(1).

Otherwise, discriminatory conduct may be masked or go undiscovered.⁵⁴² Therefore, we must find that both the quantity and quality of the evidence is sufficient in order to make a determination of whether Ameritech is in compliance with its duty to provide nondiscriminatory access to OSS functions, as required by section 271.

212. We therefore conclude that, in order to provide us with the appropriate empirical evidence upon which we could determine whether Ameritech is providing nondiscriminatory access to OSS functions, Ameritech should provide, as part of a subsequent section 271 application, the following performance data, in addition to the data that it provided in this application: (1) average installation intervals for resale;⁵⁴³ (2) average installation intervals for loops; (3) comparative performance information for unbundled network elements;⁵⁴⁴ (4) service order accuracy and percent flow through; (5) held orders and provisioning accuracy; (6) bill quality and accuracy; and (7) repeat trouble reports for unbundled network elements.⁵⁴⁵ In addition, Ameritech should ensure that its performance measurements are clearly defined, permit comparisons with Ameritech's retail operations, and are sufficiently disaggregated to permit meaningful comparisons.⁵⁴⁶ We recognize that such data alone may not be wholly dispositive, and that parties may have potentially conflicting interpretations of the data. We find, however, that it is essential for us, as both fact-finder and decision-maker, to have the empirical evidence necessary to make a reasoned and informed decision. We believe that Ameritech, or any applicant under section 271, has ample opportunity to present, at the time of its application, additional measurements or explanatory information to correct any perceived misperceptions that such data may arguably create.

213. Section 271 requires the Commission to consider the written evaluation of the state commission and to give substantial weight to the written evaluation of the Department of Justice.⁵⁴⁷ We find it significant that both the Michigan Commission and the Department of

⁵⁴² For example, Ameritech provides many performance measures in the form of intervals met, which can mask discrimination within the interval target. *See supra* Section VI.C.5.c.

⁵⁴³ The necessity for average installation intervals in the context of the OSS functions for the ordering and provisioning of resale services is discussed more fully above in Section VI.C.5.c.(1).

⁵⁴⁴ For those performance measures for unbundled network elements that can be compared to Ameritech's retail operations, such as trouble report rate, receipt to restore, and out of service over 24 hours, Ameritech's performance report should permit a direct comparison between Ameritech and competing carriers.

⁵⁴⁵ As noted above at note 346, the Commission has initiated a proceeding in response to a petition filed by LCI requesting the Commission to adopt performance standards and reporting requirements for OSS functions provided by incumbent LECs to competing carriers. *See Performance Standards Public Notice*.

⁵⁴⁶ *See* Michigan Commission Consultation at 31-32.

⁵⁴⁷ *See* 47 U.S.C. §§ 271(d)(2)(A), (B).

Justice have concluded that Ameritech should present additional and improved performance measurements before they can decide whether Ameritech has satisfied its obligation to provide nondiscriminatory access to OSS functions. Ameritech has not persuaded us to diverge from the findings made by the Department of Justice and the Michigan Commission.

7. Other Concerns

214. The Commission has a number of other concerns relating to the OSS functions provided by Ameritech to competing carriers. As discussed above, one of our major concerns regards the readiness of OSS functions for the provision of combinations of unbundled network elements.⁵⁴⁸ We highlight a number of other issues below to provide guidance to Ameritech before it files another section 271 application.

215. In general, we believe that Ameritech's publication of its electronic service ordering guide ("ESOG"), coupled with its cooperative training and consultation with competing carriers on their use of Ameritech's offered interfaces, comports with the spirit of Ameritech's obligations.⁵⁴⁹ The Commission believes that Ameritech's approach to updating information in its ESOG and adding supplemental sources of information (*i.e.*, Ameritech's world wide web site) is appropriate as systems are upgraded and refined. We are troubled, however, by the apparent emphasis on providing information and support for OSS functions that support resale as compared to that offered for the use of network elements.⁵⁵⁰ Ameritech must offer sufficient access to all methods of entry envisioned by Congress in the 1996 Act, including network elements and resale services.

216. We agree with the Department of Justice that, as a general matter, third-party review of a BOC's OSS functions is relevant, although not required, to determine whether its systems are operationally ready.⁵⁵¹ In particular, an independent evaluation of OSS functions

⁵⁴⁸ See *supra* Section VI.C.5.b.

⁵⁴⁹ Ameritech Application, Vol. 2.13, Rogers Aff. at 5-9. See Michigan Commission Consultation at 17 (Ameritech's provision of user guides appears to be a reasonable interpretation of the Act's requirements). *But see* ALTS Comments at 7-8 (disputing Ameritech's, and other BOCs', assertions that the obligation to provide access to OSS functions can be met through unilateral implementation of an interface without mutual agreement with competing carriers over whether the interface meets competing carriers' needs).

⁵⁵⁰ As discussed above in Section VI.C.5.b., we note that Ameritech has only begun to test provisioning combinations of network elements. The Michigan Commission notes that far more of the functions and subfunctions of Ameritech's interfaces are currently being utilized by resellers than by purchasers of unbundled loops. Michigan Commission Consultation at 17. Sprint notes that all of the specifications that have been provided to Sprint have dealt with total service resale, not the ordering or provisioning of unbundled elements. Sprint Comments, Reeves Aff. at 15.

⁵⁵¹ Department of Justice SBC's Oklahoma Evaluation, Appendix A at 83-84.

from an objective third-party may provide additional support demonstrating the operational readiness of those OSS functions that have otherwise only undergone internal testing by the incumbent. The persuasiveness of a third-party review is dependent, however, on the conditions and scope of the review itself.⁵⁵² We emphasize that third-party reviews should encompass the entire obligation of the incumbent LEC to provide nondiscriminatory access, and, where applicable, should consider the ability of actual competing carriers in the market to conduct business utilizing the incumbent's OSS access.⁵⁵³

217. The Commission previously has stated that it did not consider national standards a prerequisite to the provision of access to any particular OSS function.⁵⁵⁴ The Commission continues to believe, however, that the use of industry standards is the most appropriate solution to meet the needs of a competitive local exchange market.⁵⁵⁵ We are encouraged by Ameritech's commitment to transition to recently agreed-upon industry standards in a timely manner.⁵⁵⁶ We will continue to monitor the progress of industry groups in achieving agreement on standards for the provision of OSS access, and will, if necessary, consider appropriate additional Commission action in the future.⁵⁵⁷

218. With regard to Ameritech's OSS pre-ordering functions, we note that industry standard setting bodies expect to arrive at initial agreement on standards by the end of 1997.⁵⁵⁸ We believe that the record in this application raises general concerns about the capacity of Ameritech's interface for pre-ordering. We note that Ameritech represents in its

⁵⁵² Department of Justice Evaluation at Appendix A at 7 n.11.

⁵⁵³ Andersen Consulting, as part of its review, did not interview any of the competing carriers using the ordering and provisioning interfaces and operating in the Michigan market. *See, e.g.,* Illinois Commerce Commission Investigation, Concerning Illinois Bell Telephone Company Compliance with Section 271(c) of the Telecommunications Act of 1996, Docket No. 96-0404, Transcript of Proceedings at 1777 (May 6, 1997).

⁵⁵⁴ *Local Competition Second Reconsideration Order*, 11 FCC Rcd at 19744-45.

⁵⁵⁵ *Local Competition Order*, 11 FCC Rcd at 15768.

⁵⁵⁶ Ameritech Application, Vol. 2.13, Rogers Aff. at 7-8 (Ameritech commits to implementing the Telecommunications Industry Forum (TCIF) Electronic Data Interchange Issue 7.0 standard for local service within 120 days after TCIF adopts it. Ameritech has also committed to adopt the use of EDI for the ordering of loops no later than January 1, 1998).

⁵⁵⁷ As noted above at note 346, the Commission has initiated a proceeding in response to a petition filed by LCI requesting the Commission to adopt performance standards and reporting requirements for OSS functions provided by incumbent LECs to competing carriers. *See Performance Standards Public Notice.*

⁵⁵⁸ *See* Transcript of Forum on Operations Support Systems for Unbundled Network Elements and Resale Services in Docket No 96-98 (May 28-29, 1997), Ordering and Billing Forum Attachment, "Overview: Industry Guidelines for Operations Support Systems Functions."

reply that it made changes to its pre-ordering interface during the pendency of its application to increase its capacity.⁵⁵⁹ We expect that, in any future application, Ameritech will present clear evidence supporting its capacity claims for its pre-ordering interface, as of the date of filing.

219. We base our decision on this application, in part, on our finding that Ameritech has not demonstrated that it is providing nondiscriminatory access for the ordering of resale services. Although not reaching other specific ordering function issues, we note that there is conflicting evidence in the record concerning the access to OSS functions that Ameritech provides to competing carriers for the ordering of unbundled loops.⁵⁶⁰ Our concerns are focused on the level of manual processing involved in the access service request (ASR) process utilized by Ameritech, and the need for competing carriers to utilize three separate interfaces when moving a customer with existing Ameritech service to a competing carrier's service utilizing an existing Ameritech unbundled loop.⁵⁶¹ We recognize that Ameritech has made a public commitment to migrate to the industry-adopted standard for ordering loops via EDI.⁵⁶² Ameritech, in its reply, has submitted evidence indicating that it has begun meeting with interested competing carriers to plan the transition to the industry standard.⁵⁶³ We believe that this is a proper approach for Ameritech to take, as the development and adoption of industry standards continues. We expect Ameritech to migrate to the EDI interface as expeditiously as possible, given the apparent limitations associated with Ameritech's current use of the ASR interface. We also expect that, in any future application, Ameritech would provide a detailed explanation of the actions it has undertaken, as of the date of filing, to transition to the EDI standard.

220. For repair and maintenance functions, Ameritech provides competing carriers with access to its T1M1 interface, and in addition, it provides graphical user interface (GUI) software as an alternative tool to access the T1M1 interface. The Department of Justice states that it believes incumbent LECs have an obligation to provide smaller competitors with an

⁵⁵⁹ Ameritech Reply Comments, Vol. 5R.24, Rogers Reply Aff. at 17.

⁵⁶⁰ See, e.g., Brooks Comments at 17-21; Ameritech Reply Comments, Vol. 5R.16, Mickens Reply Aff. at 34-40.

⁵⁶¹ Department of Justice Evaluation, Appendix A at A-20 to A-21 ("Finally, the Department shares the concerns raised by many parties regarding Ameritech's fragmented approach to automating the loop ordering and provisioning process via a combination of ASR (loop order), EDI (number portability), and facsimile (disconnect) mechanisms"); Brooks Comments at 19.

⁵⁶² See Ameritech Reply Comments, Vol. 5R.16, Mayer, Mickens, and Rogers Reply Aff. at 11-12; see also *supra* note 556.

⁵⁶³ Ameritech Reply Comments, Vol. 5R.24, Rogers Reply Aff. at 13-15, Attachment 2.

alternative to expensive interfaces such as T1M1.⁵⁶⁴ We generally agree with the Department of Justice that incumbent LECs have an obligation to provide interfaces that allow competing carriers of all sizes a meaningful opportunity to compete in the local exchange market.⁵⁶⁵ We do believe Congress intended an incumbent's nondiscriminatory obligation to apply to smaller carriers as well as larger carriers.⁵⁶⁶ Nevertheless, we find that an incumbent LEC does not have an affirmative obligation to provide multiple interfaces to competing carriers if it is able to demonstrate that its interface is economically efficient to use by both larger and smaller entrants. Although we do not make a specific determination regarding Ameritech's interface for repair and maintenance functions, we would expect Ameritech to submit, in any future application, detailed evidence regarding the operational readiness of both Ameritech's T1M1 interface and the graphical user interface (GUI) tool that Ameritech represents it provides as an alternative method of access to the T1M1 interface.

221. Finally, Ameritech commits, in its reply, to implementing future changes to its billing systems that will provide competing carriers with more timely and accurate billing data. As discussed above, Ameritech represents that it will also add capabilities to measure billing accuracy in the near future. The evidence in the record indicates that, especially for the delivery of wholesale bills, Ameritech's performance appears to have been deficient. Ameritech claims to have resolved this problem in June, during the pendency of this application.⁵⁶⁷ We would expect to review carefully evidence regarding actual improvements made to Ameritech's billing performance in a future application. Because competing carriers that use the incumbent's resale services and unbundled network elements must rely on the incumbent LEC for billing and usage information, the incumbent's obligation to provide timely and accurate information is particularly important to a competing carrier's ability to serve its customers and compete effectively. We expect that, in its next application, Ameritech will provide detailed evidence to support its claim that it is providing billing on terms and conditions that are nondiscriminatory, just and reasonable. Finally, we would expect Ameritech to provide data that compare its performance in delivering daily usage information for customer billing to both Ameritech's retail operation and competing carriers.

⁵⁶⁴ Department of Justice Evaluation, Appendix A at A-22. The Department of Justice cites testimony by USN, a smaller competing carrier, that the T1M1 interface is too expensive to justify for its operations. See Michigan Commission Transcript of OSS Hearing, May 28, 1997 at 154-55.

⁵⁶⁵ Department of Justice Evaluation, Appendix A at A-22.

⁵⁶⁶ The Commission would have concerns that an interface could potentially be discriminatory to smaller businesses' ability to enter the local exchange market if building the interface required significant expenditures by competing carriers in order to use.

⁵⁶⁷ Ameritech Reply Comments, Vol. 5R.7, Gates and Thomas Reply Aff. at 31, and Vol. 5R.16, Mayer, Mickens, and Rogers Reply Aff. at 14; Ameritech Application, Vol. 2.10, Mickens Aff. at 48.

D. Interconnection in Accordance with Sections 251(c)(2) and 252(d)(1)**1. Summary**

222. Section 271(c)(2)(B)(i) of the Act, item (i) of the competitive checklist, requires a section 271 applicant to provide "[i]nterconnection in accordance with the requirements of sections 251(c)(2) and 252(d)(1)."⁵⁶⁸ Section 251(c)(2) imposes upon incumbent LECs "the duty to provide, for the facilities and equipment of any requesting telecommunications carrier, interconnection with the local exchange carrier's network . . . for the transmission and routing of telephone exchange service and exchange access."⁵⁶⁹ Such interconnection must be: (1) provided "at any technically feasible point within the carrier's network;"⁵⁷⁰ (2) "at least equal in quality to that provided by the local exchange carrier to itself or . . . [to] any other party to which the carrier provides interconnection;"⁵⁷¹ and (3) provided on rates, terms, and conditions that are "just, reasonable, and nondiscriminatory, in accordance with the terms and conditions of the agreement and the requirements of [section 251] . . . and section 252."⁵⁷²

223. In our *Local Competition Order*, we concluded "that the equal in quality standard of section 251(c)(2)(C) requires an incumbent LEC to provide interconnection between its network and that of a requesting carrier that is at least indistinguishable from that which the incumbent provides itself, a subsidiary, or any other party." We stated that an incumbent LEC must design its "interconnection facilities to meet the same technical criteria and service standards, such as probability of blocking in peak hours and transmission standards, that are used within [its] . . . own network[]." Moreover, we clarified that the equal-in-quality obligation is not limited to quality perceived by end users.⁵⁷³ In *Iowa Utilities Board v. FCC*, the court generally upheld the Commission's decision regarding incumbent LECs' obligations to provide access to network elements on an unbundled basis.⁵⁷⁴ Although the court rejected the Commission's rules requiring incumbent LECs to provide

⁵⁶⁸ 47 U.S.C. § 271(c)(2)(B)(i).

⁵⁶⁹ *Id.* § 251(c)(2)(A).

⁵⁷⁰ *Id.* § 251(c)(2)(B).

⁵⁷¹ *Id.* § 251(c)(2)(C).

⁵⁷² *Id.* § 251(c)(2)(D). Section 252(d)(1) states that "the just and reasonable rate for the interconnection of facilities and equipment . . . shall be . . . based on the cost . . . of providing the interconnection . . . and . . . nondiscriminatory, and . . . may include a reasonable profit." *Id.* § 252(d)(1).

⁵⁷³ *Local Competition Order*, 11 FCC Rcd at 15614-15.

⁵⁷⁴ *Iowa Utils. Bd.*, 1997 WL 403401, at *27-28.

superior interconnection upon request, the court recognized that the statute requires incumbent LECs to provide interconnection that is equal in quality to the interconnection they provide themselves.⁵⁷⁵

224. Based on our review of the record on this issue, we conclude that Ameritech has not established by a preponderance of the evidence that it is providing interconnection in accordance with the requirements of the Act. First, we find that the data Ameritech submitted provide us with an inadequate basis to compare the quality of the interconnection that Ameritech provides to other carriers to that which Ameritech provides itself. For example, Ameritech's data contain insufficient information regarding the actual level of trunk blockage and no information about the rate of call completion. Next, we conclude that, even if we were to evaluate the quality of interconnection that Ameritech provides based solely on the data that Ameritech submitted, the difference between the blocking rates on trunks that interconnect competing LECs' networks with Ameritech's network and the blocking rates on Ameritech's retail trunks suggests that Ameritech's interconnection facilities do not meet the technical criteria and service standards that Ameritech uses within its own network, contrary to the requirements imposed by 251(c)(2)(C).⁵⁷⁶ Finally, we question whether Ameritech is providing interconnection arrangements on nondiscriminatory terms and conditions, as required pursuant to section 251(c)(2)(D).⁵⁷⁷

2. Evidence on the Record

225. Ameritech exchanges traffic with Brooks Fiber, MFS WorldCom, and TCG -- the three carriers on which Ameritech relies to demonstrate compliance with this checklist item -- through end office interconnection (EOI) trunks, which are the trunks that connect Ameritech end offices and tandems with competing LECs' networks.⁵⁷⁸ In its application and accompanying affidavits, Ameritech provides extensive narrative evidence concerning its EOI trunk offerings and the associated wholesale support processes, as well as its recommendations regarding trunk provisioning and engineering.⁵⁷⁹

⁵⁷⁵ *Id.* at *23-24.

⁵⁷⁶ *See* 47 U.S.C. § 251(c)(2)(C); Department of Justice Evaluation at 26 n.35.

⁵⁷⁷ *See* 47 U.S.C. § 251(c)(2)(D).

⁵⁷⁸ Ameritech states that it provides interconnection at local and tandem switches, as well as virtual collocation in a number of wire centers, pursuant to approved agreements with those competing LECs. Moreover, Ameritech contends that it provides interconnection at any "technically feasible point" on Ameritech's network pursuant to approved agreements with AT&T and Sprint. Ameritech Application at 37, Vol. 2.3, Edwards Aff. at 9-21.

⁵⁷⁹ *See, e.g., id.*, Vol. 2.8, Mayer Aff. at 14-18, and Vol. 2.10, Mickens Aff. at 11-12.

226. Ameritech asserts that it measures the quality of its interconnection arrangements with other carriers in the same manner that it evaluates the quality of interoffice trunking in its own network. In particular, Ameritech states that it measures: installation intervals for new trunk groups, the time required to restore trunk outages, and trunk blockage.⁵⁸⁰ Ameritech provides little general explanation regarding the trunk blocking data that it submitted with its application.⁵⁸¹ Ameritech indicates that EOI trunk blocking data measure the blocking on trunk groups carrying traffic from an Ameritech end office or tandem to a competing LEC's end office.⁵⁸² Ameritech reports the data separately for trunk groups designated for exchange access traffic (alternately referred to as interLATA traffic) and for trunk groups designated for local and intraLATA toll traffic. Ameritech reports blockage when more than 2 percent of the traffic routed to a particular trunk group is blocked. To calculate and report trunk blockage on a percentage basis, Ameritech divides the number of trunk groups blocking more than 2 percent of the traffic, measured during the busy hour of the day (*i.e.*, the hour when traffic is heaviest), by the total number of trunk groups in the reporting period.⁵⁸³ Ameritech compares the EOI trunk blocking percentages to the percentage of Ameritech Retail trunks -- presumably referring to the transport links within Ameritech's network -- that block more than 2 percent of the traffic. Ameritech does not provide separate data for Ameritech Retail's interLATA and intraLATA trunks, but rather provides a single "Ameritech Retail" blocking rate.⁵⁸⁴

227. In its original filing, Ameritech provides some discussion regarding EOI trunk blocking rates, as well as some proprietary trunk blocking data, in a supporting affidavit.⁵⁸⁵ The publicly-filed information included in that affidavit report trunk blocking rates on a region-wide basis. Ameritech reports that, for a two-month period between March 1 and April 30, 1997, trunk blocking occurred in 9.4 percent of the EOI trunk groups used to

⁵⁸⁰ *Id.*, Vol. 2.10, Mickens Aff. at 11-12. Ameritech asserts that its installation intervals for provisioning EOI trunks reflect Ameritech's actual experience in provisioning network trunking arrangements to itself and are comparable to intervals established for similar access service requests. *Id.* at 10.

⁵⁸¹ Ameritech included basic information regarding the data it submitted upon the staff's request that the information no longer be considered proprietary. Letter from Lynn S. Starr, Ameritech, to William F. Caton, Acting Secretary, Federal Communications Commission (July 31, 1997).

⁵⁸² See Ameritech Reply Comments, Vol. 5R.16, Mayer, Mickens, and Rogers Reply Aff., Attachment 6 (section 2, page 4); Ameritech Application, Vol. 2.8, Mayer Aff. at 7-8 (providing background on EOI trunks).

⁵⁸³ Ameritech Reply Comments, Vol. 5R.16, Mayer, Mickens, and Rogers Reply Aff. at 38, Attachment 6 (section 3, page 1).

⁵⁸⁴ See Ameritech Reply Comments at 10-12, Vol. 5R.16, Mayer, Mickens, and Rogers Reply Aff. at 36-55, Attachment 6 (section 2, pages 2-3), and Vol. 5R.18, Mickens Reply Aff. at 43-45.

⁵⁸⁵ Ameritech Application, Vol. 2.10, Mickens Aff. at 25-26.

transport interLATA traffic and 6.6 percent of the EOI trunk groups used to transport local and intraLATA traffic in Ameritech's region.⁵⁸⁶ In other words, Ameritech claims that, during the reporting period, 9.4 percent of the EOI interLATA traffic trunk groups and 6.6 percent of the EOI local and intraLATA toll traffic trunk groups in Ameritech's five-state region experienced incidents where more than 2 percent of the calls routed to those trunk groups were blocked during the busy hour of the day. The comparable blocking rate for Ameritech Retail, Ameritech's retail sales division, was 1.5 percent during that time period.⁵⁸⁷

228. Brooks Fiber and TCG assert in their comments in this proceeding that calls to their customers that originate on Ameritech's network are frequently blocked. The competing LECs indicate that they continue to receive complaints from customers regarding blocked incoming traffic in both Michigan and Illinois.⁵⁸⁸ Brooks Fiber contends that Ameritech has failed to monitor existing EOI trunks that connect Brooks Fiber's end offices with Ameritech tandem switches and to coordinate the installation of additional trunks as needed to ensure that the interconnection facilities between their networks are adequate to handle the volume of traffic. Specifically, Brooks Fiber states that, although Ameritech installed additional EOI trunks to alleviate the network blockage, the trunks were improperly installed, resulting in the total failure of Ameritech's intraLATA toll trunks to Brooks Fiber and, ultimately, in the loss of an important Brooks Fiber customer.⁵⁸⁹ TCG further alleges that network blockage occurs within Ameritech's network. TCG suggests that traffic to TCG customers is blocked on trunk groups connecting Ameritech's end offices to Ameritech's tandem switches, so that traffic is blocked before it reaches an Ameritech tandem or the interconnection point between that tandem and TCG's network.⁵⁹⁰ Citing the record and the interconnection performance data that Ameritech submitted in its application in particular, the Department of Justice concludes that Ameritech has failed to demonstrate that it has satisfied this checklist requirement.⁵⁹¹ Moreover, the Department of Justice concludes that the evidence suggests that Ameritech has not provided competing LECs with sufficient ability to control EOI trunk blockage.⁵⁹²

⁵⁸⁶ As stated above, Ameritech reports network blockage above a 2 percent threshold, *i.e.*, when more than 2 percent of the traffic is blocked. In the proprietary data filed with Ameritech's application, Ameritech reports separately the trunk blocking percentages for each month. *See id.*, Vol. 2.10, Mickens Aff., Schedule 17.

⁵⁸⁷ The comparable rate is the rate for blockage on Ameritech's own interoffice trunking, measured during the same time period.

⁵⁸⁸ *See* Brooks Fiber Comments at 28-29; TCG Comments at 4-8, Exhibit A at 2-4.

⁵⁸⁹ Brooks Fiber Comments at 28-29.

⁵⁹⁰ TCG Comments at 4.

⁵⁹¹ Department of Justice Evaluation at 24.

⁵⁹² *Id.*, Appendix A at A-31.

229. The Michigan Commission concludes that Ameritech "appears to comply" with this checklist item because it provides interconnection and collocation to Brooks, MFS WorldCom, and TCG pursuant to their agreements. In reaching this conclusion, the Michigan Commission notes competing LECs' allegations, raised in the state proceeding, regarding network blockage. The Michigan Commission, however, does not analyze the merits of, or make factual findings with respect to, the competing LECs' allegations. Nor does it assess whether Ameritech is providing competing LECs interconnection equal in quality to that which it provides itself.⁵⁹³

230. In its reply comments and accompanying affidavits, Ameritech contends that the actions, omissions, and network architecture choices made by competing LECs themselves, and by TCG in particular, have created existing EOI network blockage problems.⁵⁹⁴ Ameritech introduces into the public record trunk blocking data for May 1997 that were not included in its original filing.⁵⁹⁵ Moreover, Ameritech revises its originally reported data. Ameritech states in its reply affidavits that an audit of the EOI trunk blocking data submitted in its original filing, which was conducted "[a]s a result of Department of Justice's expressed concerns about EOI trunk group blockage," revealed that the blocking rates on EOI intraLATA trunking groups for the months of March and April 1997 were higher than Ameritech originally reported in its application. In particular, Ameritech reports blockage of 10.7 percent region-wide in March (instead of 9.4 percent, as Ameritech originally reported on a proprietary basis in its application) and 6.2 percent region-wide in April (instead of 4.4 percent, as originally reported on a proprietary basis).⁵⁹⁶ In addition, Ameritech introduces Michigan-specific interconnection data for March, April, and May of 1997 into the public record of this proceeding for the first time in its reply comments and accompanying affidavits.⁵⁹⁷

231. The Michigan-specific data indicate that none of the EOI trunk groups used to transport interLATA traffic in Michigan blocked more than 2 percent of calls during the busy

⁵⁹³ Michigan Commission Consultation at 11-13.

⁵⁹⁴ Ameritech Reply Comments at 12, and Vol. 5R.16, Mayer, Mickens, and Rogers Reply Aff. at 49-51.

⁵⁹⁵ *Id.*, Vol. 5R.16, Mayer, Mickens, and Rogers Reply Aff. at 37-38, Attachment 6, and Vol. 5R.18, Mickens Reply Aff. at 43-45, and Schedule 8.

⁵⁹⁶ In its original filing, Ameritech included in the public record only the average blocking rate for the two-month period. Ameritech Application, Vol. 2.10, Mickens Aff. at 25-26. Ameritech has withdrawn its claim of confidentiality for the data cited in the text. See Letter from Lynn S. Starr, Ameritech, to William F. Caton, Acting Secretary, Federal Communications Commission (July 31, 1997).

⁵⁹⁷ See Ameritech Reply Comments at 11-12, and Vol. 5R.16, Mayer, Mickens, and Rogers Reply Aff. at 37-38.

hour, for the three-month period from March 1 to May 31, 1997.⁵⁹⁸ The data show, however, that, in March 1997, 7.9 percent of the EOI trunk groups used to transport local and intraLATA traffic in Michigan blocked more than 2 percent of the calls routed to the group (as compared to .4 percent of Ameritech Retail trunks in Michigan). The Michigan figure for April was 4.5 percent (as compared to 1.2 percent of Ameritech Retail trunks in Michigan) and for May was 0.0 percent (as compared to 0.6 percent of Ameritech Retail trunks in Michigan).⁵⁹⁹

3. Inadequacy of Data Submitted

232. Based on its review of Ameritech's publicly-filed information regarding network blockage rates, the Department of Justice stated that it could not conclude that Ameritech satisfied the checklist standard for interconnection.⁶⁰⁰ We agree. We find that Ameritech has provided the Commission with inadequate data by which to compare the quality of the interconnection that Ameritech provides to others to that which Ameritech provides itself. Ameritech has supplied trunk blocking data in a way that neither the Commission nor Ameritech's competitors can validate it or evaluate its significance, as Ameritech's own analysis indicates.⁶⁰¹

233. As Ameritech explains, a reported figure for EOI interLATA final trunk group blocking of 9.4 percent indicates that on 9.4 percent of the interLATA trunk groups during the busy hour of the day, more than 2 percent of the calls that travelled over that trunk group were blocked, but that report does not specify either the actual rate of blockage (*i.e.*, whether 3 percent or 30 percent of the calls were blocked) or the absolute number of calls that were blocked.⁶⁰² Ameritech contends that the EOI trunk blockage figures overstate the amount of blockage that competing LECs experience. Ameritech asserts that, due to the low number of interLATA trunks for which Ameritech reports, "an isolated and intermittent problem on one or two groups can have a wildly disproportionate effect" on the region-wide blockage

⁵⁹⁸ Ameritech Reply Comments at 10-12, and Vol. 5R.16, Mayer, Mickens, and Rogers Reply Aff. at 38-39.

⁵⁹⁹ *Id.*, Vol. 5R.16, Mayer, Mickens, and Rogers Reply Aff. at 37-39, and Attachment 6.

⁶⁰⁰ Department of Justice Evaluation at 26-27; *see also* Ameritech Application, Vol. 2.10, Mickens Aff. at 25-26.

⁶⁰¹ *See* TCG July 16 *Ex Parte* at 2-4.

⁶⁰² Ameritech Reply Comments, Vol. 5R.16, Mayer, Mickens, and Rogers Reply Aff. at 38. As discussed below, the fact that a call was blocked does not necessarily mean that it was not completed, because some calls may be re-routed.